

PATENT
Serial No. 10/517,976
Amendment in Reply to Final Office Action mailed on May 5, 2006

IN THE DRAWING

Please replace FIGs 1-2 and 9-10 with the enclosed replacement
FIGs 1-2 and 9-10.

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REMARKS

The following remarks are being filed in response to the Final Office Action mailed May 5, 2006, which has been reviewed and carefully considered. Reconsideration and allowance of the present application in view of the following remarks and arguments are respectfully requested.

In the Final Office Action, the Examiner objected to the Abstract. In response, the current Abstract has been deleted and substituted with the enclosed New Abstract which better conforms to U.S. practice. Accordingly, withdrawal of the objection to the Abstract is respectfully requested.

In the Final Office Action, the Examiner objected to the drawings because the handwritten characters of the replacement sheets are not legible. In response, replacement sheets including FIGs 1-2 and 9-10 with legible handwritten characters are enclosed.

The drawings are further objected to for failing to show N codewords having a zero running digital sum (RDS), as described in the specification. Applicant respectfully point out that this feature is shown in the drawings where, for the N=2, FIG 4 shows a

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graph that crosses the x-axis, i.e., has a value of zero for every $N=2$ code words, as described on page 9, lines 27-30, for example. Further, in FIG 3, the last two boxes to the right of box 34b (of the pre-coded word 31) include 4 bits as follows: 0111 and 0001, where there digital sum is zero. Accordingly, Applicant respectfully requests withdrawal of the drawings objection and approval of the enclosed proposed drawing sheets.

In the Final Office Action, claims 1-25 are rejected under 35 U.S.C. §112, first paragraph, since allegedly the following feature of claim 1 "...a running digital sum of each group of N code words equals zero" is not adequately described in the specification and is not clear whether the running sum is performed in the pre-coder or the coder.

Without agreeing with the Examiner, and to advance prosecution and expedite allowance of the present application, claim 1 has been amended to better clarify that precoded words are formed by precoding the stream of input words, and that the precoded words are coded into a stream of groups of N code words; where the running digital sum of each group of N code words (of the coded precoded words) equals zero. It is respectfully submitted that

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even if the language of claim 1 is awkward, nevertheless, claim 1 clearly recites that the precoded words are coded into groups of N code words, each group having a running digital sum of zero.

Further, page 5, lines 33 of the specification specifically recites that the precoder produces 4 bits for every 2 bits it processes, which is also shown in the tables on pages 5, 6 and at the bottom of page 8, as well as in the drawings, such as FIGs 3 and 5-6, where 2 input data bits are converted to 4 precoded code bits by the precoder 3, shown in FIG 1, such as 00 is converted to 1010 as shown in FIG 3, for example.

It is respectfully submitted that the specification and drawings provide ample support and sufficient description, as well as fully enables claims 1-25, in such a way as to reasonably convey to one skilled in the relevant art how to make and/or use the present invention without any undue experimentation.

For example, FIG 3 shows an input stream 30 which is precoded into a code stream 31, where for N=2 code words, the running digital sum is zero, such as the running digital sum of box 34 and 34a, namely 1010 and 0101, as well as the last two boxes as noted above, namely, 0111 and 0001, which is apparent to one skilled in

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the art in view of the specification and drawings. In addition, page 5, lines 3-4 of the specification define a 17PP coder as a parity preserving coder.

It is respectfully submitted that it would be a trivial matter for a person skilled in the art to make and/or use the claimed invention defined by the claims 1-25 in view of the specification including the drawings. Clearly, the specification including the drawings complies with the written description requirement, and one skilled in the art would know how to make and/or use the present invention from reading the present specification without any undue experimentation. Accordingly, withdrawal of this rejection of claims 1-25 under 35 U.S.C. §112, first paragraph is respectfully requested.

In the Final Office Action, claims 1-25 are rejected under 35 U.S.C. §112, second paragraph as allegedly indefinite. Without agreeing with the Examiner, and in the interest of advancing prosecution, claim 1 has been amended for better clarity. Claim 1 was not amended in order to address issues of patentability and Applicant respectfully reserves all rights he may have under the Doctrine of Equivalents.

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Further, as noted above, in the tables recited in FIGs 5-6, and claims 7-8, 16-17 and 22, a group of N=2 code words do indeed have an RDS of zero, such as 1010 and 0110, or 0001 and 0111, for example. It is respectfully submitted that the rejection of claims 1-25 have been overcome and an indication as such is respectfully requested.

In addition, Applicant denies any statement, position or averment of the Examiner that is not specifically addressed by the foregoing argument and response. Any rejections and/or points of argument not addressed would appear to be moot in view of the presented remarks. However, the Applicant reserves the right to submit further arguments in support of the above stated position, should that become necessary. No arguments are waived and none of the Examiner's statements are conceded.

It is believed that no additional fees or charges are currently due. However, in the event that any additional fees or charges are required for entrance of the accompanying amendment, they may be charged to Applicant's representatives Deposit Account No. 50-3649. In addition, please credit any overpayments related to any fees paid in connection with the accompanying amendment to

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Deposit Account No. 50-3649.

In view of the above, it is respectfully submitted that the present application is in condition for allowance, and a Notice of Allowance is earnestly solicited.

Respectfully submitted,

By 
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July 3, 2006

Enclosure: Replacement drawing sheets (4 sheets including FIGs 1-2
and 9-10
New Abstract

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